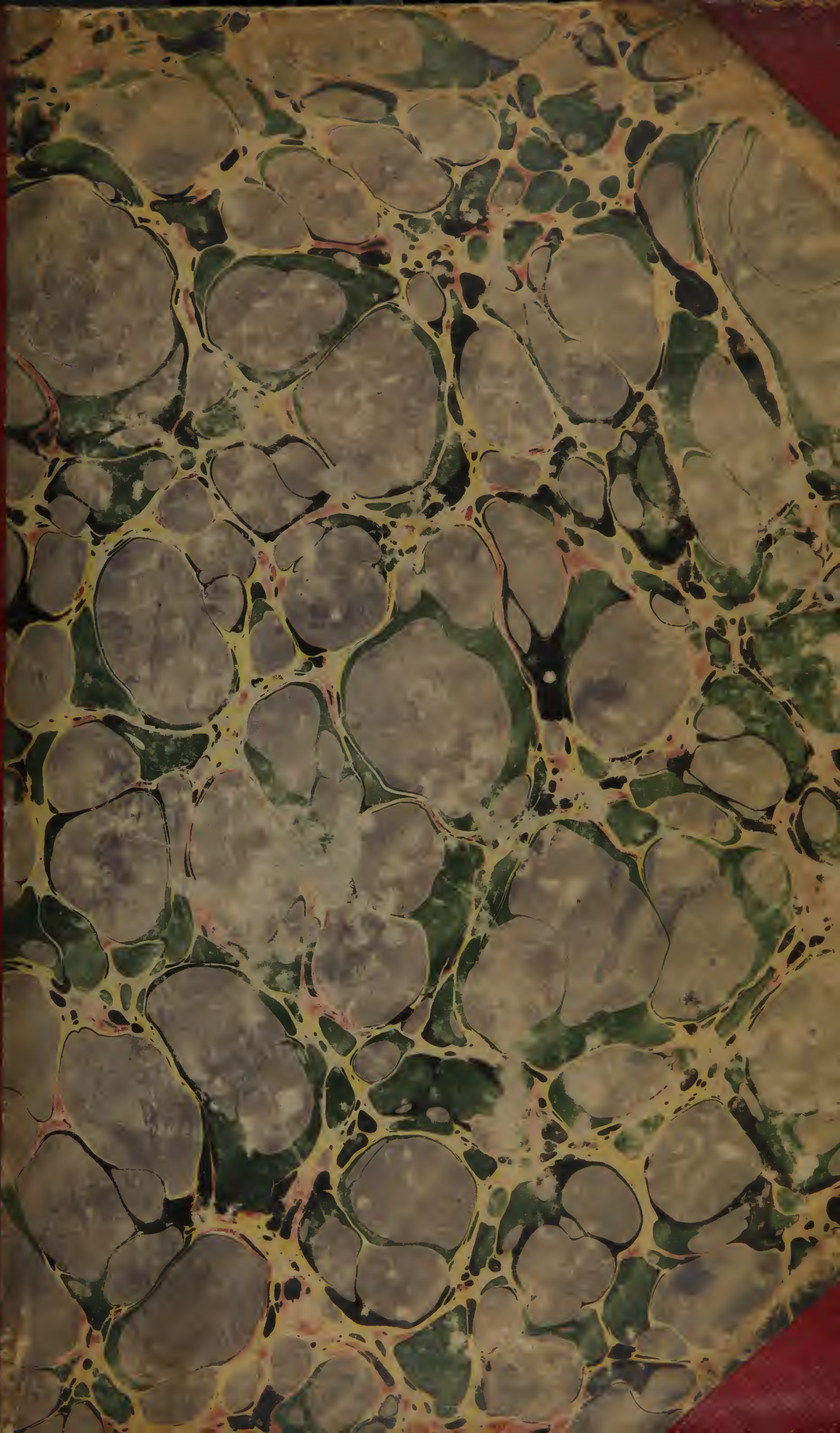


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With Compliments
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PLATES
OF THE
ARTERIES,

WITH REFERENCES;

FOR THE USE OF

MEDICAL STUDENTS.

BY

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FRANKLIN INSTITUTE, &c., &c.



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TO

NATHANIEL CHAPMAN, M. D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA,

THE ELOQUENT AND ADMIRER TEACHER,

THE DISTINGUISHED AND SUCCESSFUL PHYSICIAN,

AND THE

POLISHED GENTLEMAN,

THIS WORK IS

RESPECTFULLY AND GRATEFULLY

Dedicated.

P R E F A C E .

IN offering to the Medical Student a new work on the Arteries I am actuated by a desire to place before him a series of plates, agreeing accurately with the standard anatomical descriptions of the day, containing *every* trunk of sufficient importance to merit description, placed in exact anatomical relation to other parts. In examining the splendid and expensive works already published on the subject, I have not found one to agree *exactly* with the descriptions given in Horner's Special Anatomy, the accuracy and faithfulness of which, my own experience fully verifies. It is true that I have never found any *one* human subject which had *all* the arteries distributed as there described, an anomalous arrangement being always found in some part of the body; but the description of each trunk will be found correct in the *vast majority* of cases.

Horner's Special Anatomy, therefore, has been made the basis of the present undertaking, and the student is referred to that work for a full and minute description of the arteries; the object of the present volume being to afford a short account of the course and distribution of the principal trunks.

No attempt has been made to present what is called the surgical anatomy of the arteries, as that would require the introduction of nerves, veins, and lymphatics, unnecessarily complicating the view; but the arteries are shown in their relations to the bones, ligaments and muscles.

Although these plates are intended chiefly for the use of the student, I trust they will be found of service in the library of the practitioner as a reference, no pains having been spared to render their anatomical details as perfect as possible.

Several of the plates are original, but the majority have been taken either from the great work of *Tiedeman* on the *Arteries*, or from the beautiful and highly finished work of *Bourgery* and *Jacob*, for the use of which I am indebted to the kindness of my friend Dr. T. F. Betton, of Germantown. None of the plates were exactly copied, all having been modified to suit the standard anatomical descriptions of the present day.

P. B. G.

OF THE ARTERIES.

THE Arteries are hollow elastic tubes, commencing at the heart and terminating by minute branches in every part of the body.

The Arterial System consists of two parts, one conveying ærated or red blood, from the left side of the heart to the head, trunk and extremities; the other conveying black blood from the right side of the heart to the lungs. The former of these divisions, or the arterial system of red blood, is alone exhibited in the present work.

An Artery is cylindroid in its shape and not conical, as is generally supposed; for if it has to run a long course (as for instance in the case of the Spermatic) without branching, it will be found to maintain its diameter or even to increase it slightly as it proceeds. When an artery bifurcates, the area of the two branches is greater than the area of the primitive trunk, and in consequence, the area of the minute arteries added together, would infinitely exceed that of the Aorta at its commencement.

An Artery possesses three coats, an *external* cellular, a *middle* elastic, and an *internal* serous.

The *external* coat, is a white condensed cellular coat of no great thickness, from which the artery derives its whole strength, and on which its vessels and nerves ramify.

The *middle* coat is much the thickest, and from it the artery derives all its properties of elasticity and contractility. It is of a dusky yellow colour, and consists of circular fibres, which are collected into fasciculi, and possess no analogy in the human body except with the yellow ligaments of the spine. The properties of contractility and elasticity are most prominently manifested in a circular direction, though by no means equivocal in a longitudinal one.

The *internal* coat is a delicate transparent serous coat, giving a high polish to the calibre of the artery, but not adding to its strength.

When a ligature is applied to a *healthy* artery, a moderate degree of force causes the internal and middle coats to yield, while no force short of the strength of the material of which the ligature is composed, will cut the external coat.

The Vasa Vasorum are found chiefly on the external coat, though they permeate the middle one to some extent; not being seen (or at least carrying serum alone) on the internal. The nerves of the arteries belong to the ganglionic system, and are woven into a close network or intertexture around the vessels, accompanying them in their minutest ramifications.

Of all the tissues of the human body the Arterial is the most liable to anomalies in the origin, course, size, and distribution of the trunks.

The following plates, therefore, must be received as representations of the usual or most general arrangement of them.

The pulse is the impression made upon the touch when a living artery is compressed. The systole of the heart causes the arteries to elongate and dilate, but to a much smaller extent than the casual observer would believe—the motion being hardly appreciable to the eye when the vessel is laid bare—but when compression is made the impulse is distinctly felt at the strictured part, and constitutes the pulse.

A LIST OF THE ARTERIES,

WITH REFERENCES TO THEIR POSITION ON THE PLATES.

AORTA, Thoracic, Pl. III.

——— Abdominal, Pl. VII.

CORONARIES,

INNOMINATA, Pl. III.

PRIMITIVE CAROTID AND BRANCHES, Pl. I, II, & III.

Internal Carotid and Branches, Pl. II, Fig. 2.

Communicans Posterior, Pl. II, Fig. 2. 5.

Anterior Cerebri, Pl. II, Fig. 2. 6.

Communicans Anterior, Pl. II, Fig. 2. 17.

External Carotid and Branches, Pl. I & II.

Superior Thyroid, Pl. I, 4, & II, 13.

Laryngeal Branch, Pl. I, 5.

Lingual, Pl. I, 6, & II, 14.

Facial, Pl. I, 8.

Submental, Pl. I, 9.

Inferior Labial Pl. I, 10.

- Inferior Coronary, Pl. I, 11.
 Superior Coronary, Pl. I, 12.
 Alar, Pl. I, 13.
 Inferior Pharyngeal, Pl. I, 7.
 Occipital, Pl. I, 23.
 Posterior Auricular, Pl. I, 22.
 Temporal, Pl. I, 18.
 Transverse Facial, Pl. I, 17.
 Middle Temporal, Pl. I, 21.
 Anterior Temporal, Pl. I, 19.
 Posterior Temporal, Pl. I, 20.
 Internal Maxillary, Pl. I, 15, & II, Fig. 1. 3.
Tympanica, Pl. II, Fig. 1. 4.
Meningea Parva, Pl. II, Fig. 1. 5.
 ———— *Magna*, Pl. II, Fig. 1. 5.
Maxillaris Inferior, Pl. II, Fig. 1. 6.
Temporalis Profunda Anterior, Pl. II, Fig. 1. 8.
 ————— *Posterior*, Pl. II, Fig. 1. 7.
Pterygoideæ, Pl. II, Fig. 1. 9 & 10.
Buccalis, Pl. II, Fig. 1. 11.
Maxillaris Superior, Pl. II, Fig. 1. 12.
Infra-Orbitalis, Pl. II, Fig. 1. 15.
Palatina Superior, Pl. II, Fig. 1. 14.
Pharyngea Superior,
Spheno-palatina, Pl. II, Fig. 1. 13.
 SUBCLAVIAN AND BRANCHES, Pl. I, II, III, & IV.
 Vertebral, Pl. III, 8, & II, Fig. 2. 2.
Inferior Cerebelli, Pl. II, Fig. 2. 9.

- Basilar, Pl. II, Fig. 2. 3.
Superior Cerebelli, Pl. II, Fig. 2. 8.
Posterior Cerebri, Pl. II, Fig. 2. 4.
 Inferior Thyroid, Pl. III, 5.
 Superior Intercostal, Pl. III, 7.
 Internal Mammary, Pl. III, 6, & IV, 11.
 Posterior Cervical, Pl. I, 26, & III, 9.
 Axillary, Pl. IV & V, Fig. 1 & 2.
 Superior Scapular, Pl. IV, Fig. 1. 5, & V, Fig. 1. 2.
Thoracica Superior, Pl. IV, Fig. 1. 7, & V, Fig. 1. 3.
 ———— *Longa*, Pl. IV, Fig. 1. 9, & V, Fig. 1. 4.
 ———— *Acromialis*, Pl. IV, Fig. 1. 6, & V, Fig. 1. 5.
 ———— *Axillaris*, Pl. IV, Fig. 1. 8, & V, Fig. 1. 6.
 Scapular, Pl. IV, Fig. 1. 10, & V, 1. 7, & Fig. 2. 2.
 Anterior Circumflex, Pl. V, Fig. 2. 5.
 Posterior Circumflex, Pl. V, Fig. 2. 4.
 Brachial, Pl. V, Fig. 1.
Profunda Major, Pl. V, Fig. 1. 9.
Profunda Minor, Pl. V, Fig. 1. 10.
Nutritia, Pl. V, Fig. 1. 11.
Anastomotica, Pl. V, Fig. 1. 12.
 Radial, Pl. V, Fig. 3. 2, & VI, Fig. 1. 3.
 Recurrents Radialis, Pl. V, Fig. 3. 5, & VI, Fig. 1. 5.
 Superficialis Vole, Pl. VI, Fig. 1. 6.
 Dorsalis Carpi, Pl. VI, Fig. 2. 2.
 Magna Pollicis, Pl. VI, Fig. 1. 13, & Fig. 3. 3.
 Radialis Indicis, Pl. VI, Fig. 1. 12, & Fig. 3. 4.
 Palmaris Profunda, Pl. VI, Fig. 3. 5.

Ulnar, Pl. V, Fig. 3. 3, & VI, Fig. 1. 4.

Recurrents Ulnaris, Pl. V, Fig. 3. 6, & VI, Fig. 1. 7.

Interossea Anterior, Pl. V, Fig. 3. 4, & VI, Fig. 1. 8.

———— *Posterior*, Pl. V, Fig. 3. 4, & VI, Fig. 1. 8.

Dorsalis Manus, Pl. VI, Fig. 2. 3.

Arcus Sublimis, Pl. VI, Fig. 1. 9.

Digitals, Pl. VI, Fig. 1. 10 & 11.

BRONCHIALS, Pl. III, 11.

ŒSOPHAGEALS, Pl. III, 12.

INTERCOSTALS, Pl. III, 10.

Ramus Costalis Inferior, Pl. III.

PHRENICS, Pl. VII, 2.

CÆLIAC AND BRANCHES, Pl. VII, 4, & IV, Fig. 2. 1.

Gastric, Pl. IV, Fig. 2. 2.

Hepatic, Pl. IV, Fig. 2. 3.

Right Gastro-Epiploic, Pl. IV, Fig. 2. 4.

Cystic, Pl. IV, Fig. 2. 5.

Splenic, Pl. IV, Fig. 2. 6.

Left Gastro-Epiploic, Pl. IV, Fig. 2. 7.

Vasa Brevia, Pl. IV, Fig. 2. 8.

Pancreatics, Pl. IV, Fig. 2.

SUPERIOR MESENTERIC AND BRANCHES, Pl. VII, 5, & VIII.

Ilio-Colica, Pl. VIII, 3.

Colica Dextra, Pl. VIII, 4.

———— *Media*, Pl. VIII, 5, & IX, 7.

CAPSULARS, Pl. VII, 3.

EMULGENTS, Pl. VII, 6.

SPERMATICS, Pl. VII, 7.

INFERIOR MESENTERIC AND BRANCHES, Pl. VII, 8, & IX.

Colica Sinistra Superior, Pl. IX, 6.————— *Media*, Pl. IX, 3.————— *Inferior*, Pl. IX, 4.*Superior Hæmorrhoidal*, Pl. VII, 9, & IX, 5.

LUMBARS, Pl. VII, 10.

MIDDLE SACRAL, Pl. VII, 11.

PRIMITIVE ILIACS, Pl. VII, 12, & X, 3.

Internal Iliac and Branches, Pl. X.

Ilio-Lumbar, Pl. X, 6.

Lateral Sacral, Pl. X, 7.

Obturator, Pl. X, 8.

Middle Hæmorrhoidal, Pl. X, 10.

Vesicals, Pl. X, 9.

Uterine,

Gluteal, Pl. X, 17.

Ischiatic, Pl. X, 18.

Internal Pudic, Pl. X, 11.

Inferior Hæmorrhoidal, Pl. X, 12.

Perineal, Pl. X, 13.

Cavernosa Penis, Pl. X, 15.

External Iliac and Branches, Pl. X, XI & XII.

Epigastric, Pl. VII, 17, & XI, Fig. 1. 5.

Circumflex Iliac, Pl. X, 19, & XI, Fig. 1. 4.

Femoral, Pl. X, 21, & XI, Fig. 1. 8.

Ad Cutem Abdominis, Pl. XI, Fig. 1. 7.

External Pudics, Pl. XI, Fig. 1. 6.

Profunda Femoris, Pl. X, 23, & XI, Fig. 1. 9.

External Circumflex, Pl. X, 25, & XI, Fig. 1. 10.

Internal Circumflex, Pl. X, 24, & XI, Fig. 1. 11.

Perforating Arteries, Pl. X, 26, 27, 28, 29.

Anastomotica, Pl. XI, Fig. 1. 12.

Popliteal, Pl. XII, Fig. 1. 1.

Superior Internal Articular, Pl. XII, Fig. 1. 2.

Inferior Internal Articular, Pl. XII, Fig. 1. 4.

Superior External Articular, Pl. XII, Fig. 1. 3.

Inferior External Articular, Pl. XII, Fig. 1. 5.

Middle Articular, Pl. XII, Fig. 1. 6.

Gastrocnemials.

Anterior Tibial, Pl. XI, Fig. 2. 1.

Recurrent Tibial, Pl. XI, Fig. 2. 2.

Internal Malleolar, Pl. XII, Fig. 2. 3.

External Malleolar, Pl. XII, Fig. 2. 2.

Tarsal, Pl. XII, Fig. 2. 4.

Metatarsal, Pl. XII, Fig. 2. 5.

Dorsalis Hallucis, Pl. XII, Fig. 2. 6.

Posterior Tibial, Pl. XII, Fig. 1. 10.

Peroneal, Pl. XII, Fig. 1. 9.

Internal Plantar, Pl. XII, Fig. 3. 2.

External Plantar, Pl. XII, Fig. 3. 3.

Digitals, Pl. XII, Fig. 3. 4 & 5.

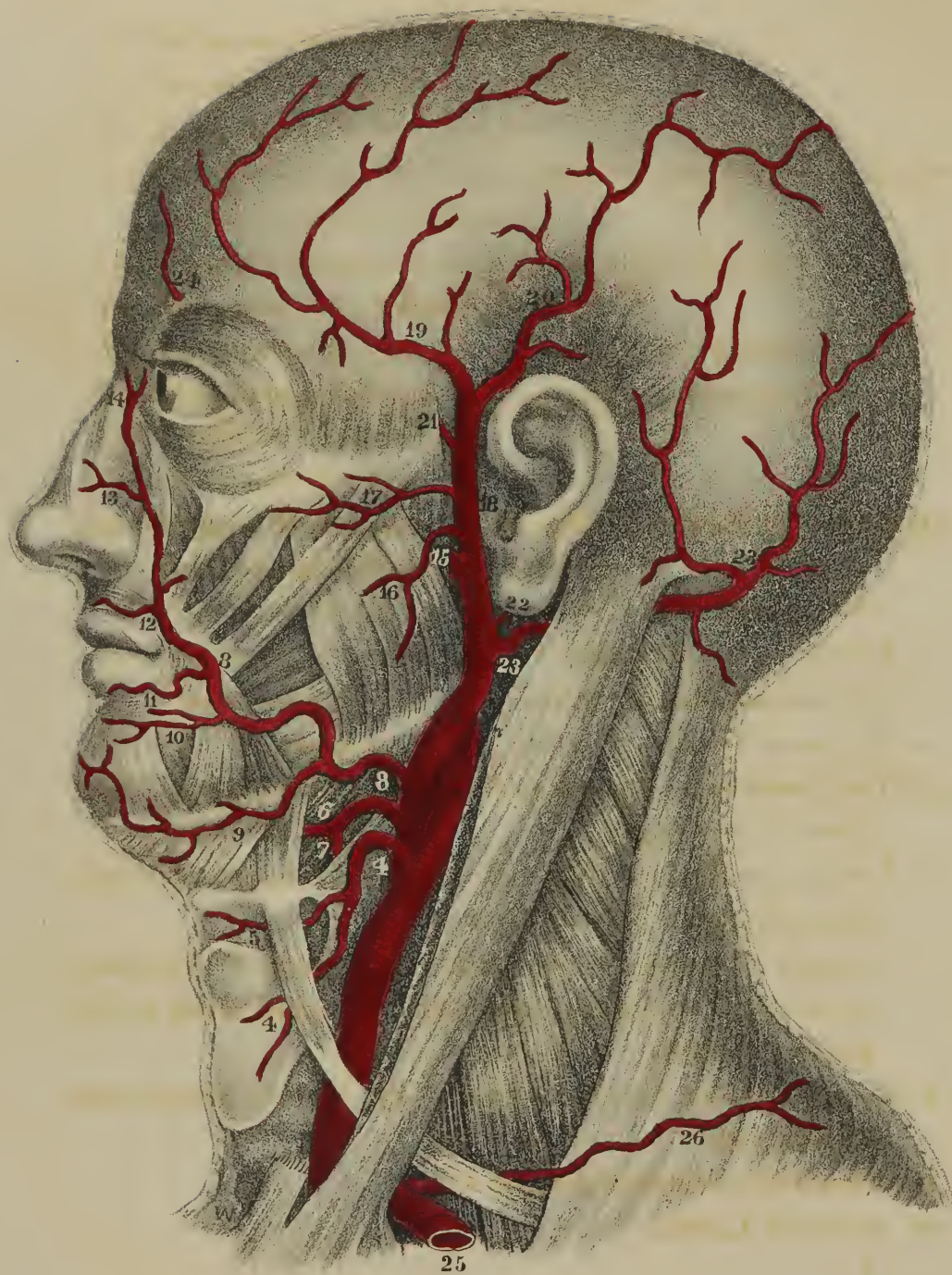


PLATE I.

PRIMITIVE AND EXTERNAL CAROTID.

1. PRIMITIVE CAROTID. The origin is seen in Pl. III from the arch of the Aorta; it is crossed by the Omo-hyoideus Muscle, and divides into
2. INTERNAL CAROTID and
3. EXTERNAL CAROTID, giving off the following branches,
4. SUPERIOR THYROIDAL to Thyroid Gland, giving off
5. The LARYNGEAL BRANCH to the Muscles and Mucous Membrane of the Larynx.
6. LINGUAL to Tongue, giving off the *Dorsales Linguæ*, the *Sublingualis* and the *Ramus Raninus*.
7. INFERIOR PHARYNGEAL to Constrictor Muscles of Pharynx; arises here from Lingual, sometimes an original trunk of the External Carotid.
8. FACIAL, crossing the Jaw in front of the Masseter Muscle, and dividing into
9. SUBMENTAL, terminating on the Chin.
10. INFERIOR LABIAL.

11. INFERIOR CORONARY, both to Lower Lip.
12. SUPERIOR CORONARY, to Upper Lip.
13. ALAR, branch to side of Nose.
14. Termination of Facial in the angle of the Eye, where it anastomoses with the Ophthalmic.
15. INTERNAL MAXILLARY, carried out in Pl. II, Fig. 1.
16. MASSETERIC, to Masseter Muscle.
17. TRANSVERSE FACIAL, just above the Duct of Steno.
18. TEMPORAL, dividing into
19. ANTERIOR BRANCH and
20. POSTERIOR BRANCH.
21. MIDDLE TEMPORAL, penetrating the Temporal Fascia to reach the Temporal Muscle.
22. POSTERIOR AURICULAR, to parts behind the Ear.
23. OCCIPITAL, to posterior part of Cranium.
24. FRONTAL ARTERY, a branch of the Ophthalmic.
25. SUBCLAVIAN, giving off
26. POSTERIOR CERVICAL to Muscles of back of Neck, its origin is seen Pl. III, 9.

Fig. 1.

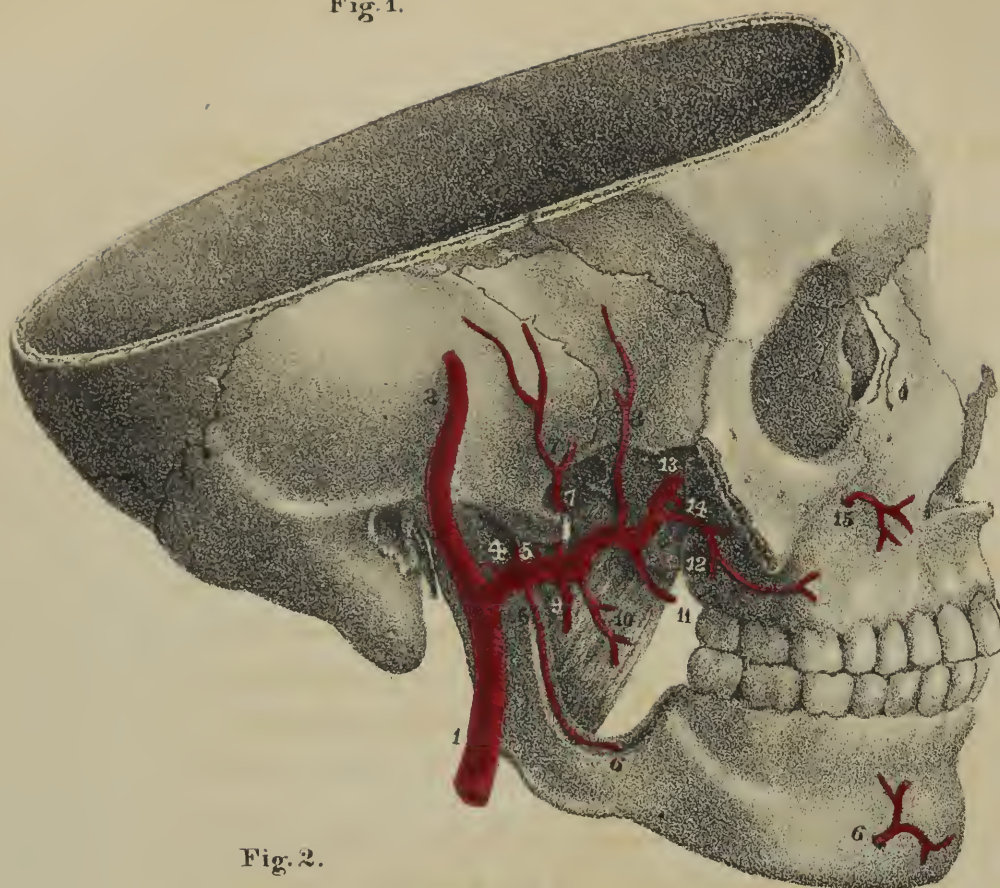


Fig. 2.

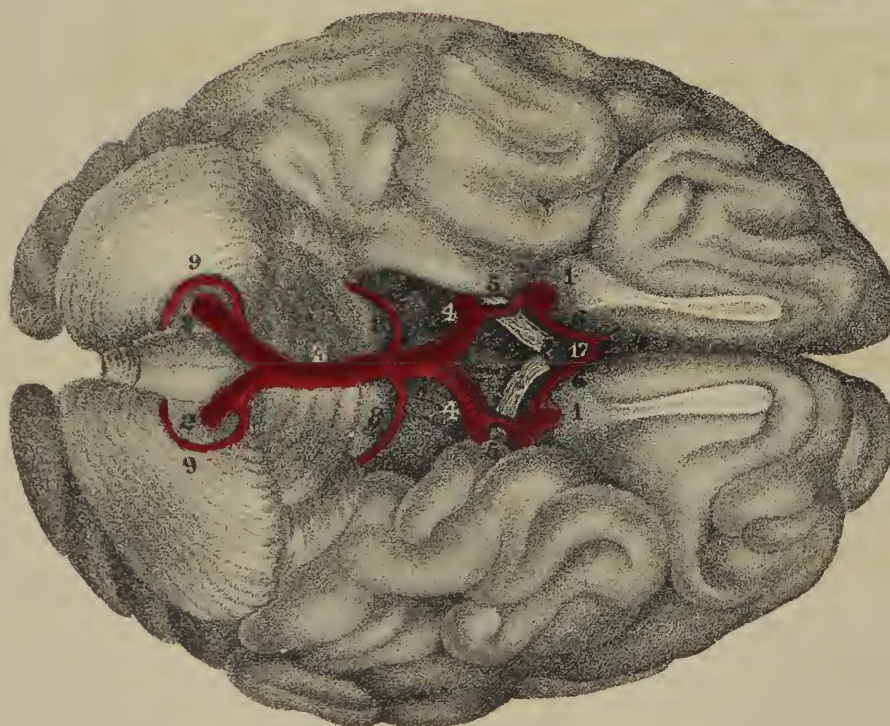


PLATE II.

INTERNAL CAROTID AND INTERNAL MAXILLARY.

FIGURE FIRST.

1. EXTERNAL CAROTID.
2. TEMPORAL.
3. Origin of INTERNAL MAXILLARY, which goes behind the ramus of the Lower Jaw, and gives off the following branches
4. TYMPANICA, through the glenoid foramen to the Tympanum.
5. The Two MENINGEAL Arteries, the MENINGEA MAGNA and PARVA to the Dura Mater, the former through the Foramen Spinale, the latter through the Ovale.
6. MAXILLARIS INFERIOR, to Teeth of Lower Jaw terminating on Chin.
7. Posterior Deep Temporal, and
8. Anterior Deep Temporal to Temporal Muscle.
9. PTERYGOID.
10. PTERYGOID to Pterygoidei Muscles.
11. BUCCALIS, to Buccinator Muscle.
12. MAXILLARIS SUPERIOR, to Posterior Teeth of Upper Jaw.

13. SPHENO-PALATINA, or terminating trunk of Internal Maxillary to Schneiderian Membrane.
14. PALATINA SUPERIOR, through Posterior Palatine Foramen to the Hard Palate; it gives off the PHARYNGEA SUPERIOR, which is not seen.
15. INFRA ORBITALIS, to Canine and Incisor Teeth of Upper Jaw and Muscles of Mouth.

FIGURE SECOND.

1. INTERNAL CAROTIDS.
2. VERTEBRALS, terminating in
3. BASILAR.
4. POSTERIOR CEREBRI, to Inferior and Posterior part of Brain.
5. COMMUNICANS POSTERIOR, from the last to the Carotid.
6. ARTERIA CALLOSA or ANTERIOR CEREBRI, to the Anterior and Upper Surface of the Brain.
17. COMMUNICANS ANTERIOR, uniting the two last.
8. SUPERIOR CEREBELLI, to upper part of Cerebellum.
9. INFERIOR CEREBELLI, to the neighbourhood of the fourth Ventricle.

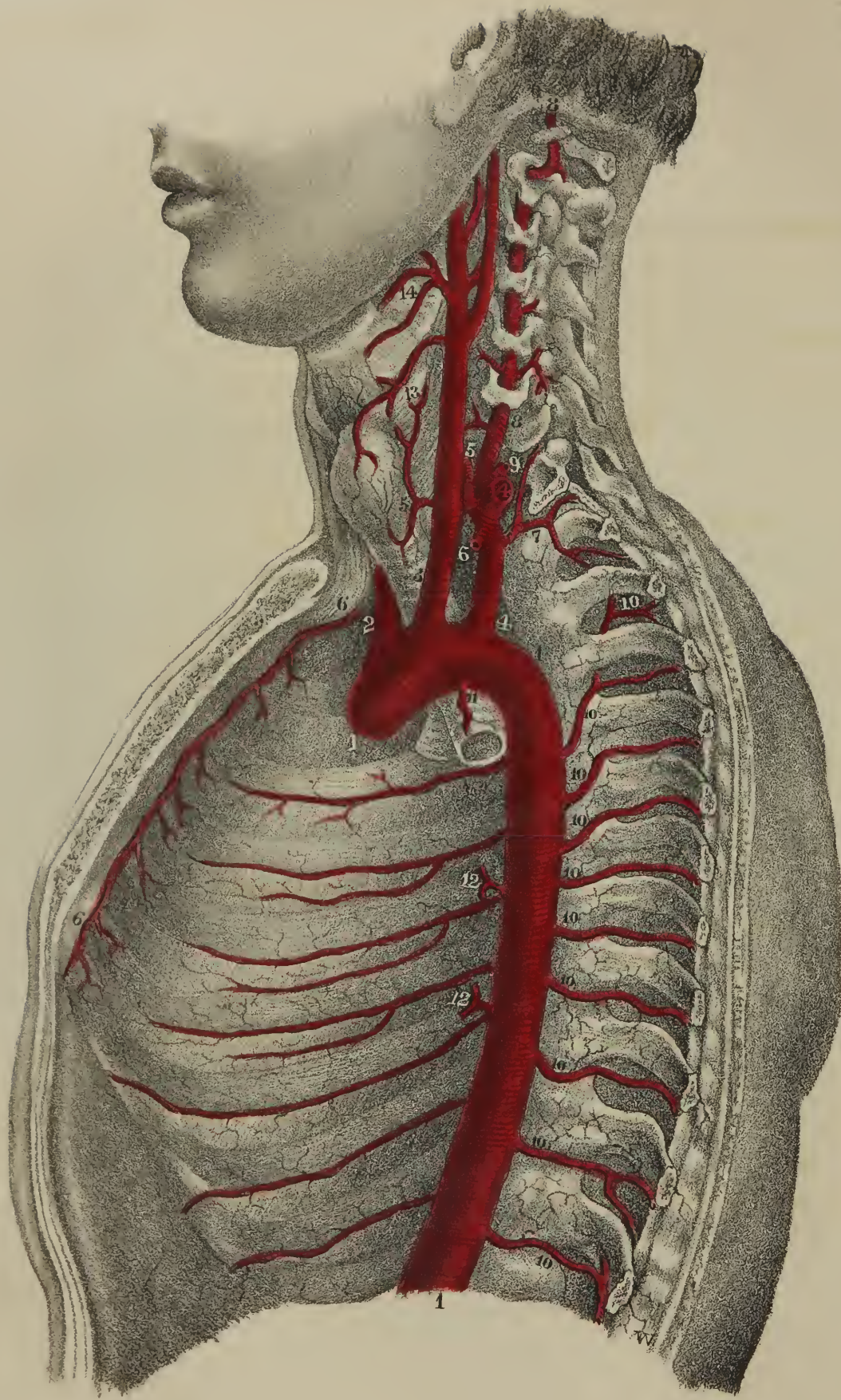


PLATE III.

THORACIC AORTA AND SUBCLAVIAN.

1. THORACIC AORTA, from the left Ventricle to the body of the first Lumbar Vertebra. It forms its arch from right to left, over the left Bronchium and passes down to the left of the Median Line.
2. ARTERIA INNOMINATA, branching into right Primitive Carotid and right Subclavian.
3. LEFT PRIMITIVE CAROTID.
4. LEFT SUBCLAVIAN, giving off the five following branches before it enters between the Scaleni Muscles.
5. INFERIOR THYROID, to lower part of Thyroid Gland.
6. INTERNAL MAMMARY, the continuation of which is seen on the right side, running along the margin of the Sternum, and anastomosing with the Epigastric.
7. SUPERIOR INTERCOSTAL, supplying the two Superior Intercostal spaces.
8. VERTEBRAL, passing through the foramen in the transverse pro-

cesses of the six upper Cervical Vertebrae, and entering the Foramen Magnum to be distributed as in Pl. II, Fig. 2.

9. POSTERIOR CERVICAL, for distribution see Pl. I, 26.
10. INTERCOSTALS, the ten inferior from the Aorta, distributed to the ten Inferior Intercostal Spaces, and anastomosing with branches from the Internal Mammary.
11. BRONCHIAL, to Parenchyma of Lungs.
12. ŒSOPHAGEALS, to Œsophagus.
13. SUPERIOR THYROID. See Pl. I, 4.
14. LINGUAL. See Pl. I, 6.

Fig. 1.



Fig. 2.

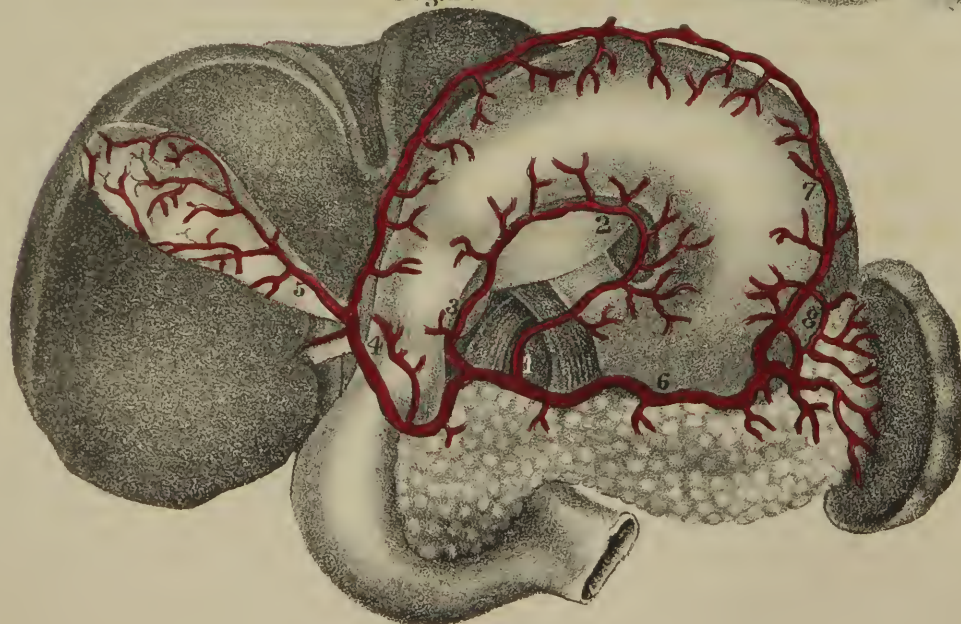


PLATE IV.

AXILLARY AND CÆLIAC.

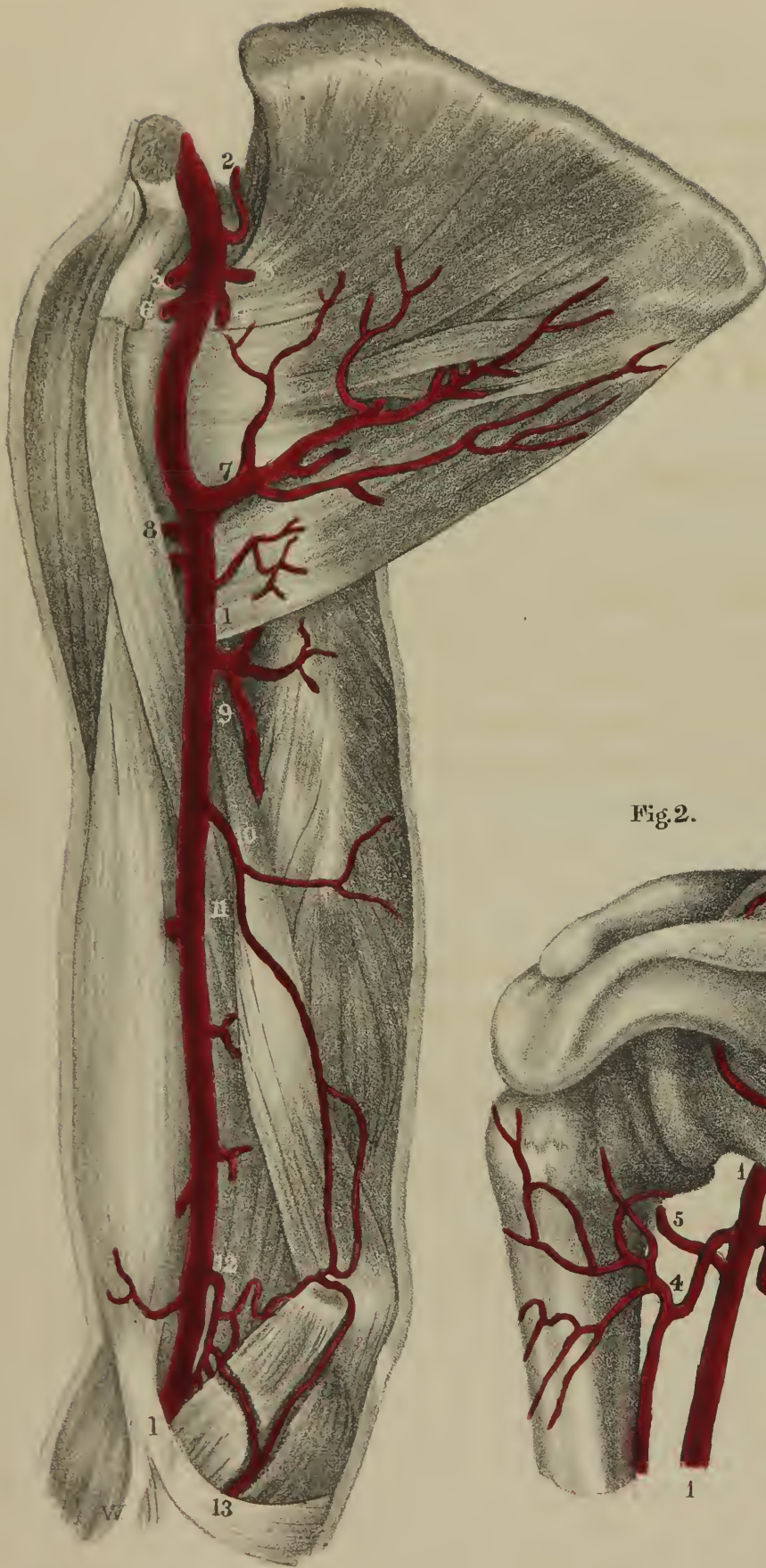
FIGURE FIRST.

1. ARTERIA INNOMINATA, branching into
2. RIGHT PRIMITIVE CAROTID and
3. RIGHT SUBCLAVIAN.
4. Termination of AXILLARY, which extends from the lower edge of the Subclavius Muscle to this point.
5. SUPRA SCAPULAR, through coracoid notch to Supra-Spinatus Muscle. See Pl. V, Fig. 1. 2, & Fig. 2. 3.
6. THORACICA ACROMIALIS.
7. THORACICA SUPERIOR, to Pectoralis Major and Minor.
8. THORACICA AXILLARIS, to glands, &c. of Axilla.
9. THORACICA LONGA, to Pectoralis Muscle and Mamma.
10. SCAPULAR, to Subscapularis Muscle, &c. See Pl. V, Fig. 1. 7, & Fig. 2. 2.
11. INTERNAL MAMMARY. See Pl. III, 6.

FIGURE SECOND.

1. CÆLIAC, trifurcating into the Gastric, Hepatic and Splenic Arteries.
2. GASTRIC, to lesser curvature of Stomach.
3. HEPATIC, to transverse fissure of Liver.
4. RIGHT GASTRO-EPIPLOIC, to the right end of the greater curvature of the Stomach.
5. CYSTIC, to Gall-Bladder.
6. SPLENIC, running along the upper edge of the Pancreas to the Spleen. It gives off the PANCREATICS to the Pancreas, and the following:
7. LEFT GASTRO-EPIPLOIC, to the left extremity of the greater curvature of the Stomach, and
8. VASA BREVIA, to the *Cul-de-Sac* of the Stomach.

Fig. 1.



PL.V.



Fig. 3.

Fig. 2.

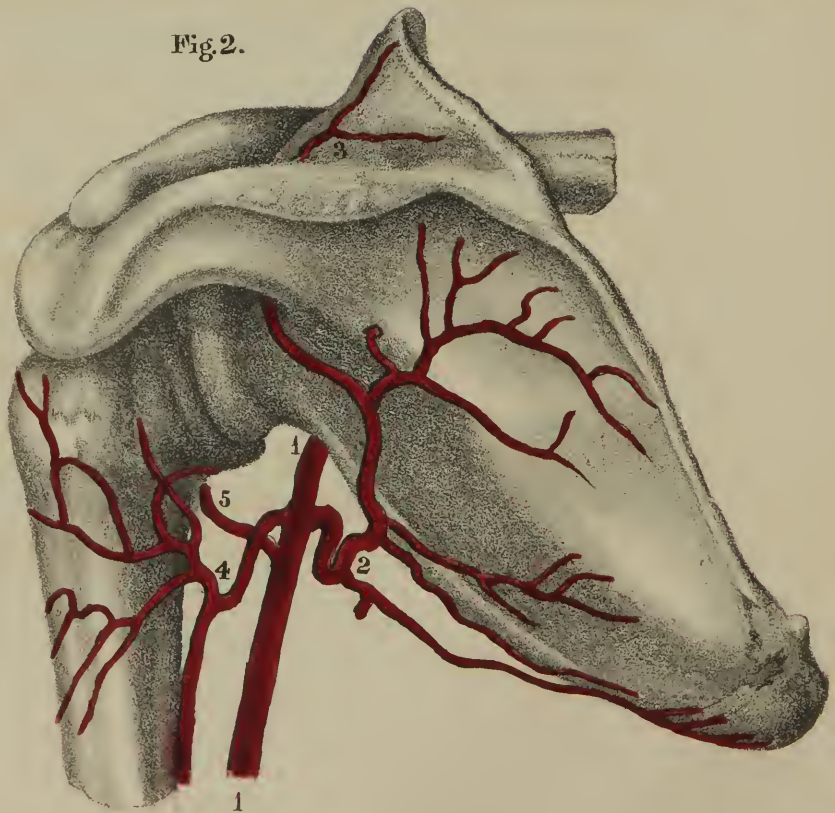


PLATE V.

BRACHIAL.

FIGURE FIRST.

1. 1. BRACHIAL ARTERY, commencing at the termination of the Axillary, and terminating at or near the bend of the Arm, and dividing into the RADIAL and ULNAR, as seen at Fig. 3.
2. SUPRA-SCAPULAR, through the Coracoid notch to the Supra-Spinatus Muscle. See Fig. 2. 3.
3. THORACICA SUPERIOR.
4. ——— LONGA.
5. ——— ACROMIALIS.
6. ——— AXILLARIS. See last Plate for these four.
7. SCAPULAR, to Subscapularis Muscle and Fossa Infra-Spinata. Fig. 2. 2.
8. CIRCUMFLEX ARTERIES, ANTERIOR and POSTERIOR, for continuation see Fig. 2. 4 & 5.
9. PROFUNDA MAJOR, winding spirally around the Humerus and distributed chiefly to the Triceps Muscle.
10. PROFUNDA MINOR, to the internal face of Triceps.

11. Position of the NUTRITIA, which enters the Nutritious Foramen of the Humerus and supplies the Medulla.
12. ANASTOMOTICA, inosculating with
13. ULNAR RECURRENT.

FIGURE SECOND.

1. 1. AXILLARY and BRACHIAL.
2. SCAPULAR.
3. Termination of Supra-Scapular.
4. POSTERIOR CIRCUMFLEX.
5. ANTERIOR CIRCUMFLEX, both to muscles and ligaments in the neighborhood of the Articulation.

FIGURE THIRD

Anticipates somewhat the next plate, the bifurcation of the BRACHIAL into RADIAL and ULNAR is seen, and its relation to the Elbow Joint.

1. BRACHIAL ARTERY.
2. RADIAL.
3. ULNAR.
4. INTEROSSEAL.
5. RECURRENT RADIAL.
6. RECURRENT ULNAR.

Fig. 1.



Fig. 2.

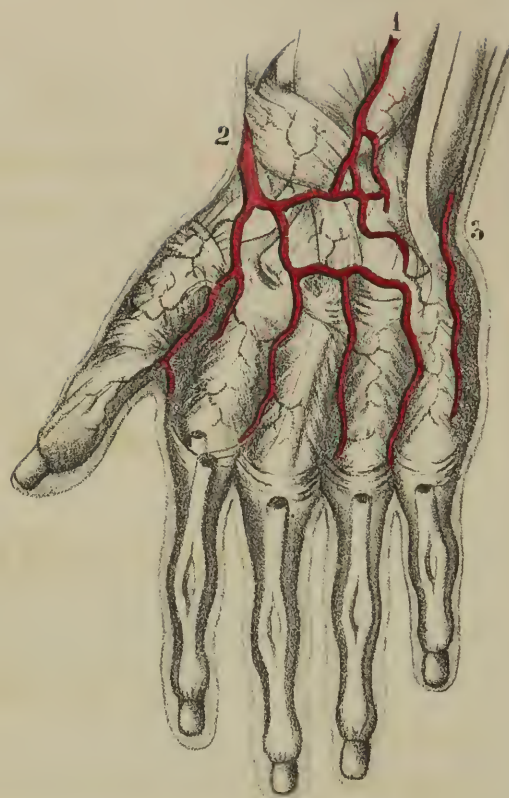


Fig. 3.

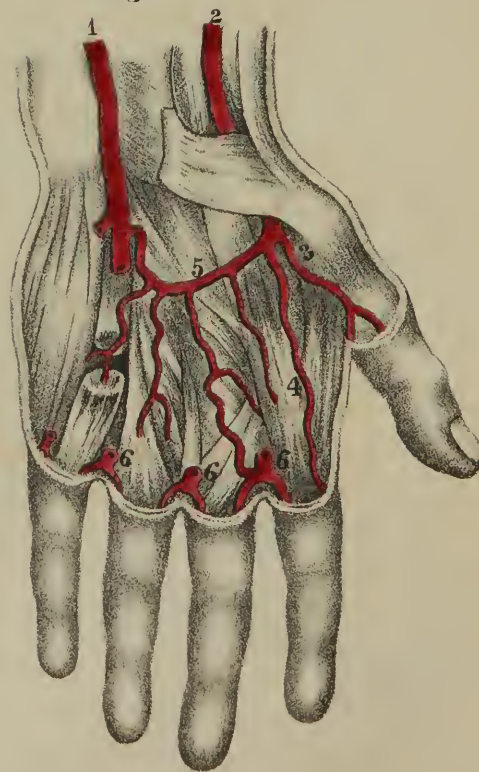


PLATE VI.

RADIAL AND ULNAR.

FIGURE FIRST.

1. BRACHIAL.
2. Bifurcation into
3. 3. RADIAL, lying at the lower part, between the Tendons of the *Supinator Radii Longus* and the *Flexor Carpi Radialis*, and
4. 4. ULNAR, passing under the Bellies of the *Pronator Teres*, *Flexor Radialis*, *Flexor Sublimis* and *Palmaris Longus*, and found at the Wrist between the Tendons of the *Flexor Carpi Ulnaris* and the *Flexor Profundus*.
5. RECURRENT RADIAL.
6. SUPERFICIALIS VOLÆ, to the Ball of the Thumb.
7. RECURRENT ULNAR, inosculating with ANASTOMOTICA.
8. INTEROSSEAL, dividing into ANTERIOR and POSTERIOR.
9. ARCUS SUBLIMIS, giving off
10. Branch to Ulnar side of Little Finger.
11. THREE DIGITALS, supplying the Fingers.

12. RADIALIS INDICIS, to Radial side of Fore-Finger.
13. MAGNA POLLICIS, to Thumb.

FIGURE SECOND.

1. POSTERIOR INTEROSSEAL.
2. DORSALIS CARPI, from the RADIAL.
3. DORSALIS MANUS, from the ULNAR.

FIGURE THIRD.

1. ULNAR ARTERY.
2. RADIAL.
3. MAGNA POLLICIS.
4. RADIALIS INDICIS.
5. PALMARIS PROFUNDA, or Deep Seated Arch.
6. DIGITALS, from ARCUS SUPERFICIALIS.

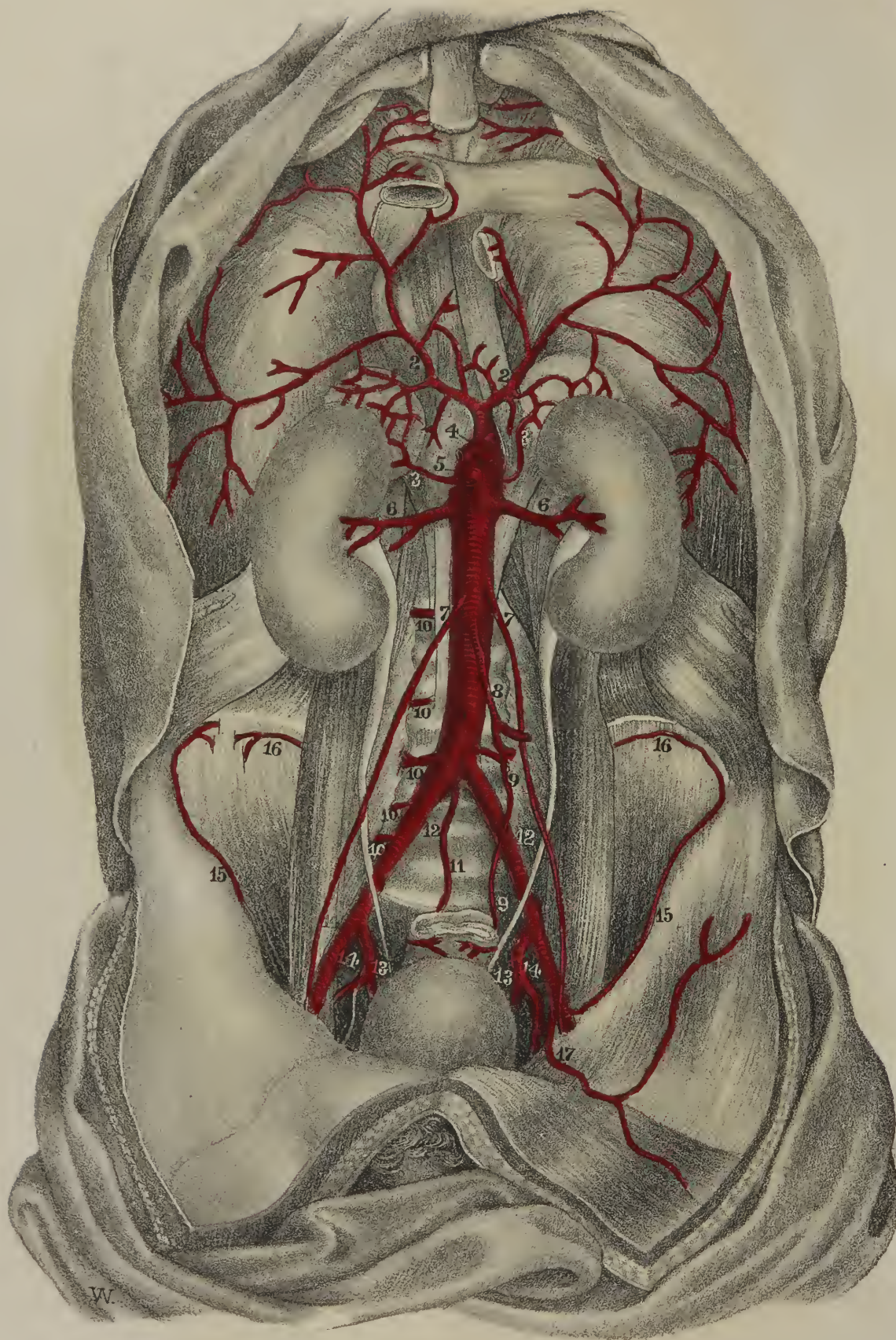


PLATE VII.

ABDOMINAL AORTA.

1. 1. ABDOMINAL AORTA, appearing at the *Hiatus Aorticus*, and terminating opposite the fourth Lumbar Vertebra by bifurcating into the Primitive Iliacs, 12.
2. 2. PHRENIC ARTERIES, to Diaphragm.
3. 3. CAPSULARS, to *Capsulæ Renales*.
4. CÆLIAC, for termination of which see Pl. IV, Fig. 2.
5. SUPERIOR MESENTERIC. See Pl. VIII.
6. 6. EMULGENTS to Kidneys, the right being the longest.
7. 7. SPERMATICS, to Testicles.
8. INFERIOR MESENTERIC. See Pl. IX.
9. SUPERIOR HÆMORRHOIDAL, to Rectum.
10. The Five LUMBAR ARTERIES.
11. MIDDLE SACRAL.
12. PRIMITIVE ILIACS. See Pl. X.
13. 13. INTERNAL ILIACS.
14. 14. EXTERNAL ILIACS.

15. CIRCUMFLEX ILIAC, coursing along the *Crista* of the Ilium.
16. ILIO-LUMBAR, from Internal Iliac.
17. EPIGASTRIC, supplying the Rectus Muscle, &c.

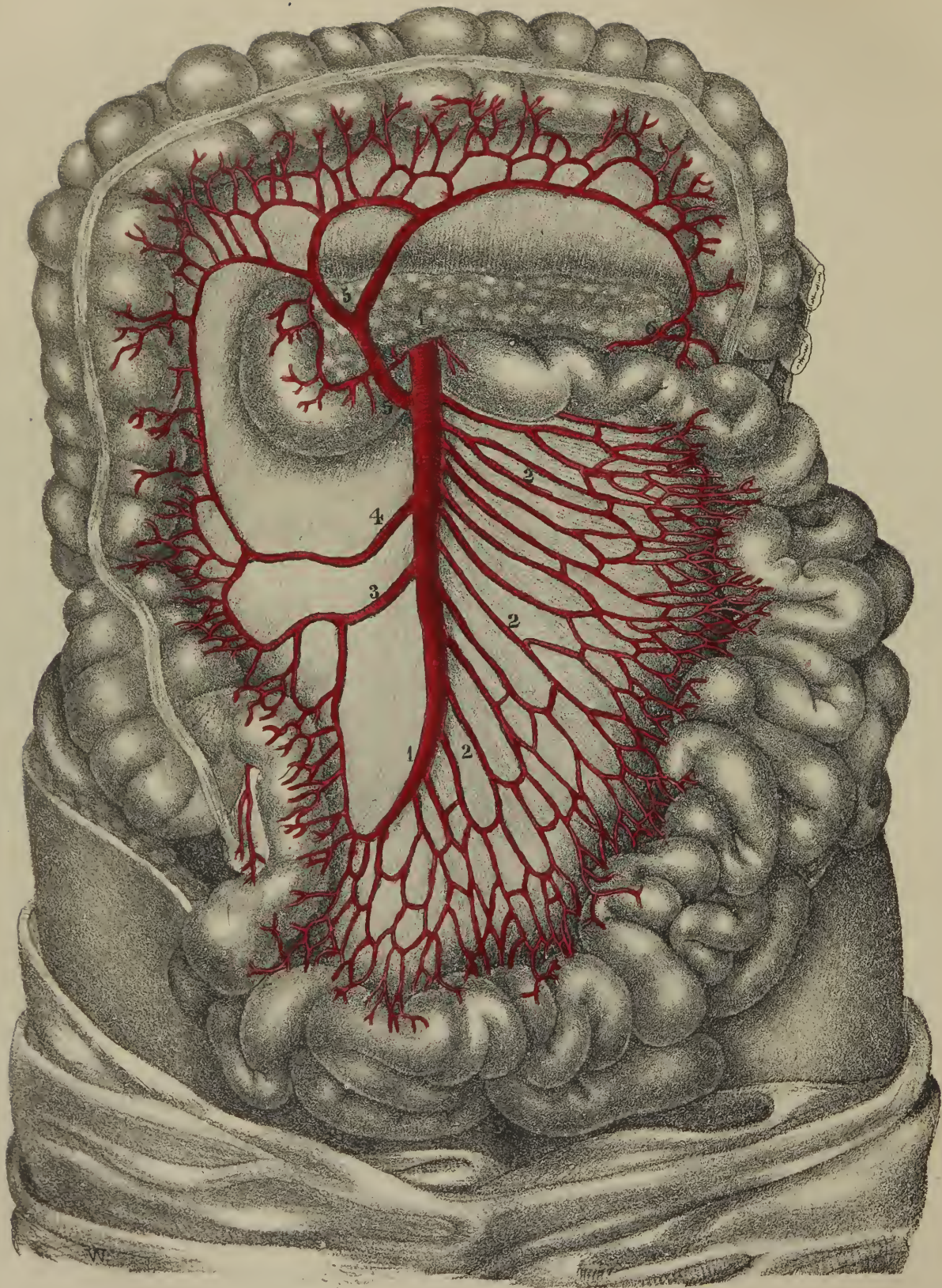


PLATE VIII.

SUPERIOR MESENTERIC.

1. 1. SUPERIOR MESENTERIC ARTERY arises from the Aorta after the Cœliac, and forms a curve to the right; from the convex surface numerous trunks (2. 2. 2.) arise which anastomose with each other, and form a series of arcades between the Laminæ of the Mesentery. The convex surfaces of these arches in their turn give off trunks, which form more numerous and smaller arches, which again give rise to smaller trunks, and form a third series just where the Mesentery joins the Intestine. From the surface of the third series of arches straight vessels arise which supply the small intestines. The concave surface gives off the following trunks:
 3. ILIO-COLICA, to Caput Coli.
 4. COLICA DEXTRA, to ascending Colon, and
 5. COLICA MEDIA, to arch of Colon, which at number
 6. Anastomoses with the COLICA SINISTRA SUPERIOR, a branch of the Inferior Mesenteric.

4° B

Goddard, Paul B

Plates of the arteries, with references;
for the use of medical students. Phila-
delphia, Auner, 1839.

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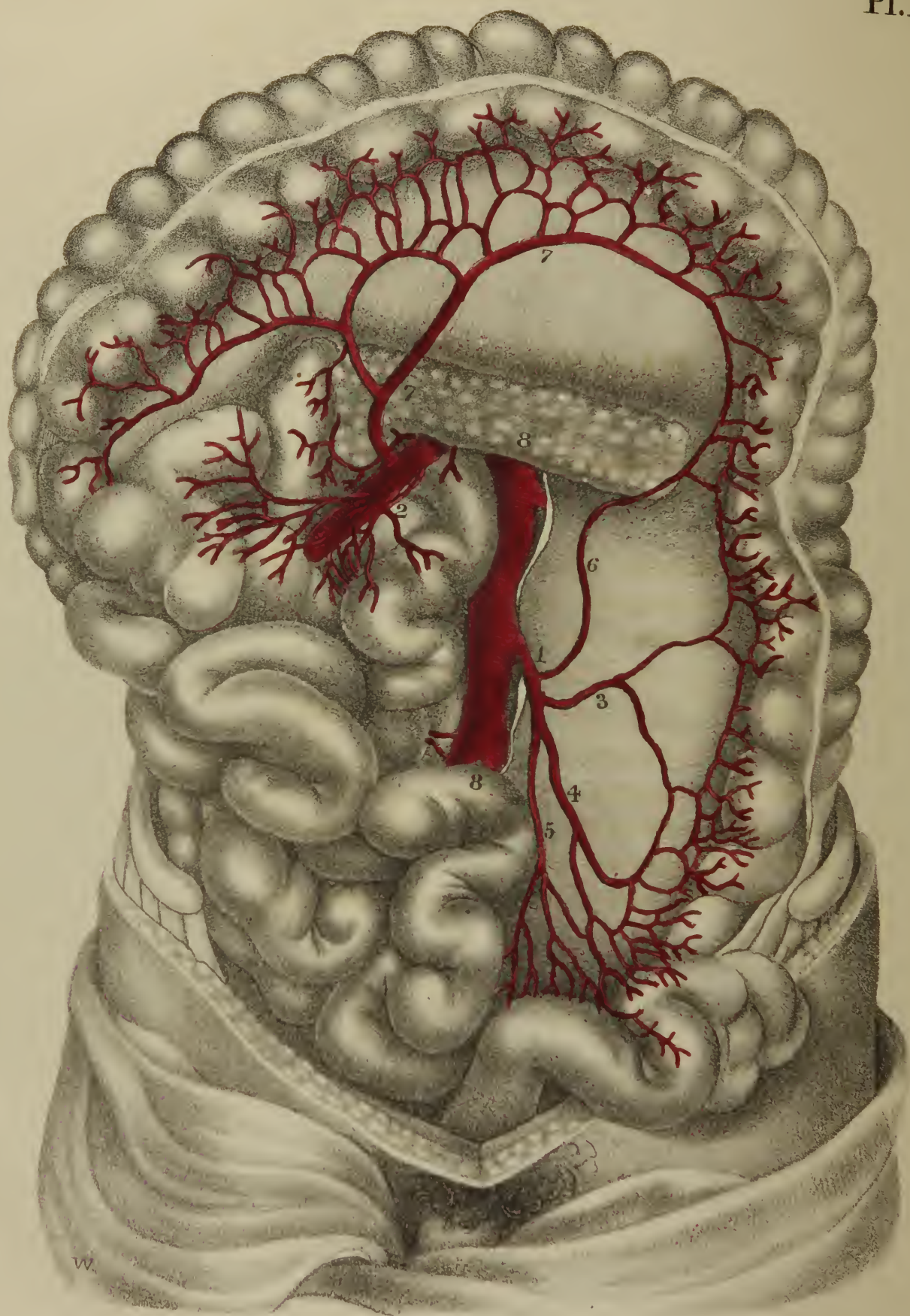


PLATE IX.

INFERIOR MESENTERIC.

1. INFERIOR MESENTERIC, arising from the Aorta after the EMULGENTS and supplying the large Intestines.
2. SUPERIOR MESENTERIC pushed to one side.
3. COLICA SINISTRA MEDIA, to descending Colon.
4. COLICA SINISTRA INFERIOR, to Sigmoid Flexure, &c.
5. SUPERIOR HÆMORRHOIDAL ARTERY, (the terminating trunk of the Inferior Mesenteric) supplying the Rectum.
6. COLICA SINISTRA SUPERIOR, to the left portion of the arch of the Colon, anastomosing with
7. COLICA DEXTRA, a branch of the SUPERIOR MESENTERIC.
8. 8. AORTA.



PLATE X.

ILIACS.

1. AORTA at its lower extremity.
2. Bifurcation of the Aorta into the Primitive Iliacs opposite the fourth Lumbar Vertebra.
3. PRIMITIVE ILIACS extending from the fourth Lumbar Vertebra to near the Sacro-Iliac Symphysis, where they divide into External and Internal Iliacs.
4. EXTERNAL ILIAC extending to Poupart's Ligament, having passed which it assumes the name of Femoral.

INTERNAL ILIAC.

5. INTERNAL ILIAC, about one inch in length before it divides into the following eight trunks:
6. ILIO-LUMBAR, supplying the *Psoæ*, *Iliacus* and *Quadratus* Muscles.
7. LATERAL SACRAL, entering the Sacral Foramina to supply the *Cauda Equina*.
8. OBTURATOR, passing through the upper part of the Thyroid

Foramen to the Muscles on the upper and inner part of the Thigh and to the Hip Joint.

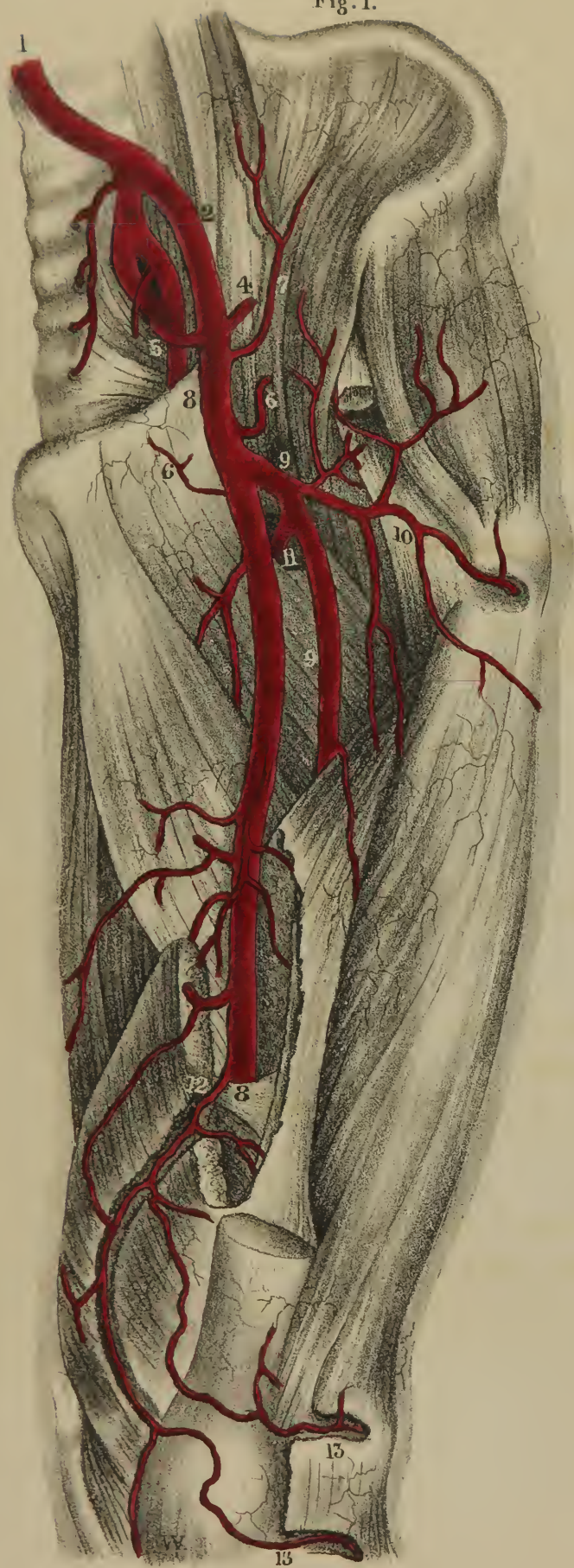
9. VESICALS, to the Bladder.
10. MIDDLE HÆMORRHOIDAL, to the Rectum.
11. INTERNAL PUDIC, which immediately passes out of the Pelvis above the insertion of the Anterior Sacro-Sciatic Ligament. It returns again at the inferior margin of the same ligament, between it and the posterior, and then runs along the Ramus of the Ischium and Pubes to reach the root of the Penis. In this course it is within the margin of the bones and protected from external violence. It gives off the following five branches:
 12. INFERIOR HÆMORRHOIDAL, to *Sphincter Ani* Muscle, &c.
 13. TRANSVERSE PERINEAL, to the Muscles and Integuments of the Perineum.
 14. URETHRO-BULBAR, to the *Corpus Spongiosum Urethræ*.
 15. CAVERNOSA PENIS, to the *Corpora Cavernosa Penis*.
 16. RAMUS SUPERFICIALIS DORSI PENIS, to the Skin of Penis and Prepuce.
17. GLUTEAL ARTERY, one of the great divisions of the Internal Iliac, passes out of the Pelvis at the upper part of the Ischiatic Notch and supplies the Glutei Muscles.
18. ISCHIATIC, passes out above the Anterior Sacro-Sciatic Ligament and supplies the Hamstring Muscles.

EXTERNAL ILIAC.

19. CIRCUMFLEX ILII, running around the *Crista* of the Ilium. See Pl. VII, 15.

20. **EPIGASTRIC**, for continuation see Pl. VII, 17.
21. **FEMORAL**.
22. Points where the **FEMORAL** becomes **POPLITEAL**.
23. **PROFUNDA FEMORIS**, the great Muscular Artery of the Thigh.
It gives off the following branches:
24. **INTERNAL CIRCUMFLEX**, to the Muscles on the inner and upper part of the Thigh. See Pl. XI.
25. **EXTERNAL CIRCUMFLEX**, to the Muscles on the outer part of the Thigh.
26. 27. 28. 29. **FOUR PERFORATING ARTERIES**, so called because they perforate the Adductor Magnus to supply the Muscles on the back of the Thigh.

Fig. 1.



E. Flohr del.

Fig. 2.

Pl. XI.



Sinclair's Lith.

PLATE XI.

FEMORAL AND ANTERIOR TIBIAL.

FIGURE FIRST.

1. PRIMITIVE ILIAC.
2. EXTERNAL ILIAC.
3. INTERNAL ILIAC.
4. CIRCUMFLEX ILII. See Pl. VII, 15.
5. EPIGASTRIC. See Pl. VII, 17.
6. 6. EXTERNAL PUDICS, to the Glands of the Groin, Scrotum, Mons Veneris, &c.
7. ARTERIA AD CUTEM ABDOMINIS,
8. 8. FEMORAL, seen in its whole course, the *Sartorius* and *Rectus Femoris* Muscles having been removed.
9. PROFUNDA FEMORIS, arising about an inch below Poupart's Ligament. It gives off
10. EXTERNAL CIRCUMFLEX, and
11. INTERNAL CIRCUMFLEX to the Muscles of the Thigh and the four Perforating Arteries, for which see last Plate.
12. ANASTOMOTICA, the last branch of the Femoral just before it

passes through the Tendon of the Adductor Magnus and becomes Popliteal.

13. INTERNAL ARTICULAR ARTERIES, branches of the Popliteal anastomosing with 12.

FIGURE SECOND.

1. 1. ANTERIOR TIBIAL, placed in front of the Interosseous Ligament and between the *Tibialis Anticus* and the *Extensor Longus Digitorum* Muscles. It gives off
2. RECURRENT TIBIAL, to the lower part of the Knee Joint Muscular Branches, which are numerous, and
3. Branch of INTERNAL MALLEOLAR, for which see Pl. XII, Fig. 2. 3. 3.
4. Branch of EXTERNAL MALLEOLAR. See Pl. XII, Fig. 2. 2.

Fig. 1.

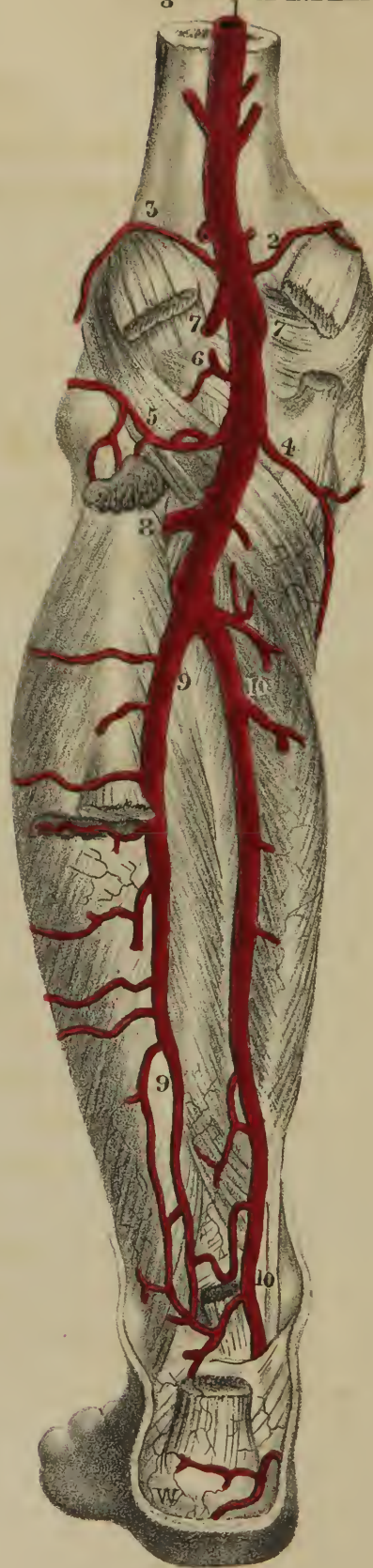


Fig. 2.



Fig. 3.



PLATE XII.

POPLITEAL AND POSTERIOR TIBIAL.

FIGURE FIRST.

1. POPLITEAL ARTERY extends from the opening in the Tendon of the *Adductor Magnus*, to the opening in the Interosseous Ligament at the top of the Leg, it there divides into ANTERIOR and POSTERIOR TIBIAL. Before this division it gives off seven trunks, five of which are called Articular.
2. SUPERIOR INTERNAL ARTICULAR ARTERY.
3. ——— EXTERNAL ARTICULAR.
4. INFERIOR INTERNAL ARTICULAR.
5. ——— EXTERNAL ARTICULAR.
6. MIDDLE ARTICULAR.
7. 7. GEMELLAR ARTERIES, to the heads of the *Gastrocnemius* Muscle.
8. ANTERIOR TIBIAL. See Pl. IX, Fig. 2.
9. PERONEAL ARTERY, running deeply behind the Fibula and reaching as far as the External Ankle.
10. POSTERIOR TIBIAL runs along the posterior face of the FLEXOR

LONGUS DIGITORUM, and winds around the sinuosity of the Os Calcis to reach the sole of the Foot, where it is distributed as in Fig. 3.

FIGURE SECOND.

Top of the Foot.

1. ANTERIOR TIBIAL, continued.
2. EXTERNAL MALLEOLAR, to the external half of the Ankle Joint.
3. 3. INTERNAL MALLEOLARS, to the internal half of Do.
4. TARSAL ARTERY.
5. METATARSAL ARTERY, giving branches to the *Interossei* Muscles.
6. DORSALIS HALLUCIS, to the space between the first two Toes.

FIGURE THIRD.

Sole of the Foot.

1. POSTERIOR TIBIAL, continued.
2. INTERNAL PLANTAR.
3. EXTERNAL PLANTAR.
4. Branch to outside of Little Toe.
5. DIGITAL BRANCHES.

LATIN INDEX.

					Plate
A					
Arteria ad Cutem Abdominis,	-	-	-	-	11
Alveolaris Superior, -	-	-	-	-	2
Anastomotica Brachii,	-	-	-	-	5
————— Cruris,	-	-	-	-	11
Articularis Inferior Externa,	-	-	-	-	12
————— ————— Interna,	-	-	-	-	12
————— Media, -	-	-	-	-	12
————— Superior Externa,	-	-	-	-	12
————— ————— Interna,	-	-	-	-	12
Auricularis Posterior,	-	-	-	-	1
B					
Basilaris, - - - - -	-	-	-	-	2
Buccalis, - - - - -	-	-	-	-	2

						Plate
					C	
Arteria	Callosa,	-	-	-	-	2
	Carotis Externa,	-	-	-	-	1
	—— Interna,	-	-	-	-	2
	—— Primitiva,	-	-	-	-	1 & 3
	Cavernosa Profunda Penis,	-	-	-	-	10
	Cerebri Anterior,	-	-	-	-	2
	—— Posterior,	-	-	-	-	2
	Cervicalis Posterior,	-	-	-	-	1
	Circumflexa Anterior,	-	-	-	-	5
	—— Externa,	-	-	-	-	10 & 11
	—— Interna,	-	-	-	-	10 & 11
	—— Ilii,	-	-	-	-	7
	—— Posterior,	-	-	-	-	5
	Cœliaca,	-	-	-	-	4 & 7
	Colica Dextra,	-	-	-	-	8
	—— Media,	-	-	-	-	8 & 9
	—— Sinistra Inferior,	-	-	-	-	9
	—— Sinistra Media,	-	-	-	-	9
	—— Sinistra Superior,	-	-	-	-	9
	Communicans Anterior,	-	-	-	-	2
	—— Posterior,	-	-	-	-	2
					D	
	Dentalis Inferior,	-	-	-	-	2
	Dorsalis Carpi,	-	-	-	-	6

					Plate
Arteria Dorsalis Hallucis,	-	-	-	-	12
——— Manus,	-	-	-	-	6
E					
Epigastrica,	-	-	-	-	7
F					
Facialis,	-	-	-	-	1
Femoralis,	-	-	-	-	10 & 11
Frontalis,	-	-	-	-	1
G					
Gastrica,	-	-	-	-	4
——— Dextra,	-	-	-	-	4
——— Sinistra,	-	-	-	-	4
Glutea,	-	-	-	-	10
H					
Hæmorrhoidæ Inferior,	-	-	-	-	10
——— Media,	-	-	-	-	10
——— Superior,	-	-	-	-	7 & 9
Hepatica,	-	-	-	-	4
I					
Iliaca Externa,	-	-	-	-	7, 10 & 11
——— Interna,	-	-	-	-	7, 10 & 11
——— Primitiva,	-	-	-	-	7, 10 & 11

					Plate
Arteria	Ilio-Colica,	-	-	-	8
	Ilio-Lumbaris,	-	-	-	7 & 10
	Innominata,	-	-	-	3 & 4
	Intercostalis Superior,	-	-	-	3
	Interossea Anterior,	-	-	-	6
	———— Posterior,	-	-	-	6
	Infra-Orbitalis,	-	-	-	2
	Inferior Cerebelli,	-	-	-	2
	Ischiatica,	-	-	-	10
L					
	Lingualis,	-	-	-	1
M					
	Magna Pollicis,	-	-	-	6
	Mammaria Interna,	-	-	-	3
	Maxillaris Interna,	-	-	-	2
	Malleolaris Externa,	-	-	-	12
	———— Interna,	-	-	-	12
	Mesenterica Inferior,	-	-	-	9
	———— Superior,	-	-	-	8
	Metatarsa,	-	-	-	12
	Meningea Magna,	-	-	-	2
	———— Parva,	-	-	-	2
N					
	Nutritia,	-	-	-	5

Plate

O

Arteria Obturatoria,	-	-	-	-	-	10
Occipitalis,	-	-	-	-	-	1

P

Palatina Superior,	-	-	-	-	-	2
Palmaris Profunda,	-	-	-	-	-	6
Pediæa,	-	-	-	-	-	12
Perinea,	-	-	-	-	-	10
Pharyngea Inferior,	-	-	-	-	-	1
Plantaris Externa,	-	-	-	-	-	12
———— Interna,	-	-	-	-	-	12
Poplitea,	-	-	-	-	-	12
Profunda Femoris,	-	-	-	-	-	10 & 11
———— Major Humeri,	-	-	-	-	-	5
———— Minor Humeri,	-	-	-	-	-	5
Pudica Interna,	-	-	-	-	-	10

R

Radialis,	-	-	-	-	-	6
———— Indicis,	-	-	-	-	-	6
Recurrents Tibiæ,	-	-	-	-	-	11
———— Radialis,	-	-	-	-	-	5 & 6
———— Ulnaris,	-	-	-	-	-	5 & 6

S

Sacra Lateralis,	-	-	-	-	-	10
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					Plate
Arteria Sacra Media,	-	-	-	-	7
Scapularis, -	-	-	-	-	4 & 5
Spheno-Palatina,	-	-	-	-	2
Splenica, -	-	-	-	-	4
Superficialis Volæ,	-	-	-	-	6
Superior Cerebelli,	-	-	-	-	2
Superior Scapulæ,	-	-	-	-	4 & 5

T

Tarsea, -	-	-	-	-	12
Temporalis, -	-	-	-	-	1
Thoracica Acromialis,	-	-	-	-	4
———— Axillaris, -	-	-	-	-	4
———— Longa, -	-	-	-	-	4
———— Superior, -	-	-	-	-	4
Thyroidea Inferior,	-	-	-	-	3
———— Superior, -	-	-	-	-	1 & 3
Tibialis Anterior,	-	-	-	-	11
———— Posterior, -	-	-	-	-	12
———— Recurrens, -	-	-	-	-	11
Tympanica,	-	-	-	-	2

U

Ulnaris, -	-	-	-	-	6
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V

Vertebralis, -	-	-	-	-	2 & 3
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						Plate
Arteriæ Bronchiales,	-	-	-	-	-	3
Capsulares,	-	-	-	-	-	7
Emulgentes,	-	-	-	-	-	7
Gastricæ Breves,	-	-	-	-	-	4
Gemellæ,	-	-	-	-	-	12
Iliacæ Primitivæ,	-	-	-	-	7, 10 & 11	
Intercostales,	-	-	-	-	-	3
Lumbares,	-	-	-	-	-	7
Œsophageæ,	-	-	-	-	-	3
Pancreaticæ,	-	-	-	-	-	4
Phrenicæ,	-	-	-	-	-	7
Pterygoideæ,	-	-	-	-	-	2
Pudendæ Externæ,	-	-	-	-	-	11
Sacræ Laterales,	-	-	-	-	-	10
Spermaticæ,	-	-	-	-	-	7
Temporales Profundæ,	-	-	-	-	-	2
Vesicales,	-	-	-	-	-	10



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L.S.G.

